Figure 1A

SEQ ID NO:			
6	mouse_E3αII	MASEMEPEVQ AID-RSLLEC SAEEIAGRWL QATDLNREVY QHLAHCVPKI	49
4	human_E3αII	MASELEPEVQ AID-RSLLEC SAEEIAGKWL QATDLTREVY QHLAHYVPKI	49
15	mouse_E3αI	MADEEMDGAE RMDVSPEPPL APQRPASWWD QQVDFYTAFL HHLAQLVPEI	50
2	human_E3αI	MADEEAGGTE RMEISAELPQ TPQRLASWWD QQVDFYTAFL HHLAQLVPEI	50
	Consensus	MA.E..... ..D....L.. .....A..W. Q..D.....HLA..VP.I	50
6	mouse_E3αII	YCRGPNPFPQ KEDTLAQHIL LGPMEWYICA EDPALGFPKL EQANKPSHLC	99
4	human_E3αII	YCRGPNPFPQ KEDMLAQHVL LGPMEWYLCG EDPAFGFPKL EQANKPSHLC	99
15	mouse_E3αI	YFAEMDPDLE KQEESVQMSI LTPLEWYLFG EDPDICLEKL KHSG-AFQLC	99
2	human_E3αI	YFAEMDPDLE KQEESVQMSI FTPLEWYLFG EDPDICLEKL KHSG-AFQLC	99
	Consensus	Y.....P... K.....Q... L.P.EWYL.G EDP.....KL LC	100
6	mouse_E3αII	GRVFKVGEPT YSCRDCAVDP TCVLCMECFL GSIHRDHRYR MTTSGGGGFC	149
4	human_E3αII	GRVFKVGEPT YSCRDCAVDP TCVLCMECFL GSIHRDHRYR MTTSGGGGFC	149
15	mouse_E3αI	GKVFKSGETT YSCRDCAIDP TCVLCMDCFQ SSVHKNHRYK MHTSTGGGFC	149
2	human_E3αI	GRVFKSGETT YSCRDCAIDP TCVLCMDCFQ DSVHKNHRYK MHTSTGGGFC	149
	Consensus	GRVFK.GE.T YSCRDCA.DP TCVLCM.CF. .S.H..HRY. M TS.GGGFC	150
6	mouse_E3αII	DCGDTEAWKE GPYCQKHKLS SSEVVEEEDP LVHLSEDVIA RTYNIFAIMF	199
4	human_E3αII	DCGDTEAWKE GPYCQKHELN TSEIEEEEDP LVHLSEDVIA RTYNIFAITF	199
15	mouse_E3αI	DCGDTEAWKT GPFCVDHEPG RAGTTKESLH -CPLNEEVIA QARRIFPSVI	198
2	human_E3αI	DCGDTEAWKT GPFCVNHEPG RAGTIKENSR -CPLNEEVIV QARKIFPSVI	198
	Consensus	DCGDTEAWK. GP.C..HE.. .....E... ...L.E.VIA ....IF....	200

Figure 1B

6	mouse_E3αII	RYAVDILTWE KESELPEDLE VAEKSDTYYC MLFNDEVHTY EQVIYTLQKA	249
4	human_E3αII	RYAVEILTWE KESELPADLE MVEKSDTYYC MLFNDEVHTY EQVIYTLQKA	249
15	mouse_E3αI	KYIVEMTIWE EEKELPPELQ IREKNERYYC VLFNDEHHSY DHVIYSLQRA	248
2	human_E3αI	KYVVEMTIWE EEKELPPELQ IREKNERYYC VLFNDEHHSY DHVIYSLQRA	248
	Consensus	.Y.VE...WE .E.ELP..L. ..EK...YYC .LFNDE.H.Y ..VIY.LQ.A	250
6	mouse_E3αII	VNCTQKEAIG FATTVDRDGR RPVRYGDFQY CDQAKTVIVR NTSRQTK-PL	298
4	human_E3αII	VNCTQKEAIG FATTVDRDGR RSVRYGDFQY CEQAKSVIVR NTSRQTK-PL	298
15	mouse_E3αI	LDCELAEAQL HTTAIDKEGR RAVKAGVYAT CQEAKEDIKS HSENVSQHPL	298
2	human_E3αI	LDCELAEAQL HTTAIDKEGR RAVKAGAYAA CQEAKEDIKS HSENVSQHPL	298
	Consensus	..C...EA.. ..T..D..GR R.V..G.... C..AK..I.. ....PL	300
6	mouse_E3αII	KVQVMHSSVA AHQNFGLKAL SWLGSVIGYS DGLRRILCQV GLQEGPDGEN	348
4	human_E3αII	KVQVMHSSIV AHQNFGLKLL SWLGSIIGYS DGLRRILCQV GLQEGPDGEN	348
15	mouse_E3αI	HVEVLHSVVM AHQKFALRLG SWMNKIMSYS SDFRQIFCQA CLVEEPGSEN	348
2	human_E3αI	HVEVLHSEIM AHQKFALRLG SWMNKIMSYS SDFRQIFCQA CLREEPDSEN	348
	Consensus	.V.V.HS... AHQ.F.L.L. SW..I..YS ...R.I.CQ. .L.E.PD.EN	350

Figure 1C

```
6    mouse_E3αII  SSLVDRLMLN DSKLWKGARS VYHQLFMSSL LMDLKYKKLF ALRFAKNYRQ  398
4    human_E3αII  SSLVDRLMLS DSKLWKGARS VYHQLFMSSL LMDLKYKKLF AVRFAKNYQQ  398
15   mouse_E3αI   PCLISRLMLW DAKLYKGARK ILHELIFSSF FMEMEYKKLF AMEFVKYYKQ  398
2    human_E3αI   PCLISRLMLW DAKLYKGARK ILHELIFSSF FMEMEYKKLF AMEFVKYYKQ  398
     Consensus    ..L..RLML. D.KL.KGAR. ..H.L..SS. .M..YKKLF A..F.K.Y.Q  400

6    mouse_E3αII  LQRDFMEDDH ERAVSVTALS VQFFTAPTLA RMLLTEENLM TVIIKAFMDH  448
4    human_E3αII  LQRDFMEDDH ERAVSVTALS VQFFTAPTLA RMLITEENLM SIIIKTFMDH  448
15   mouse_E3αI   LQKEYISDDH ERSISITALS VQMLTVPTLA RHLIEEQNVI SVITETLLEV  448
2    human_E3αI   LQKEYISDDH DRSISITALS VQMFTVPTLA RHLIEEQNVI SVITETLLEV  448
     Consensus    LQ.....DDH ER..S.TALS VQ.FT.PTLA R.LI.E.N.. SVI..T...   450
```

Figure 1D

SEQ ID NO:								
6	mouse_E3αII	LKHRDAQGRF	QFERYTALQA	FKFRRVQSLI	LDLKYVLISK	PTEWSDELRQ	498
4	human_E3αII	LRHRDAQGRF	QFERYTALQA	FKFRRVQSLI	LDLKYVLISK	PTEWSDELRQ	498
15	mouse_E3αI	LPEYLDRNN-	KFN-FQGYSQ	DKLGRVYAVI	CDLKYILISK	PVIWTERLRA	496
2	human_E3αI	LPEYLDRNN-	KFN-FQGYSQ	DKLGRVYAVI	CDLKYILISK	PTIWTERLRM	496
	Consensus	L.....	.F.....	.K..RV...I	.DLKY.LISK	PT.W..LR.	500
6	mouse_E3αII	KFLQGFDAFL	ELLKCMQGMD	PITRQVGQHI	EMEPEWEAAF	TLQMKLTHVI	548
4	human_E3αII	KFLEGFDAFL	ELLKCMQGMD	PITRQVGQHI	EMEPEWEAAF	TLQMKLTHVI	548
15	mouse_E3αI	QFLEGFRSFL	KILTCMQGME	EIRRQVGQHI	EVDPDWEAAI	AIQMQLKNIL	546
2	human_E3αI	QFLEGFRSFL	KILTCMQGME	EIRRQVGQHI	EVDPDWEAAI	AIQMQLKNIL	546
	Consensus	.FLEGF..FL	..L.CMQGM.	.I.RQVGQHI	E..P.WEAA.	..QM.L....	550
6	mouse_E3αII	SMVQDWCALD	EKVLIEAYKK	CLAVLTQCHG	GFTDGEQPIT	LSICGHSVET	598
4	human_E3αII	SMMQDWCASD	EKVLIEAYKK	CLAVLMQCHG	GYTDGEQPIT	LSICGHSVET	598
15	mouse_E3αI	LMFQEWCACD	EDLLLVAYKE	CHKAVMRCST	NFMSSTKTV-	VQLCGHSLET	595
2	human_E3αI	LMFQEWCACD	EELLLVAYKE	CHKAVMRCST	SFISSSKTV-	VQSCGHSLET	595
	Consensus	.MQ.WCA.D	E..L..AYK.	C....M.C..	.F.....	...CGHS.ET	600

Figure 1E

```
6     mouse_E3αII  IRYCVSQEKV SIHLPISRLL AGLHVLLSKS EVAYKFPELL PLSELSPPML  648
4     human_E3αII  IYCVSQEKV SIHLPVSRLL AGLHVLLSKS EVAYKFPELL PLSELSPPML  648
15    mouse_E3αI   KSYKVSEDLV SIHLPLSRTL AGLHVRLSRL GAISRLHEFV PFDSFQVEVL  645
2     human_E3αI   KSYRVSEDLV SIHLPLSRTL AGLHVRLSRL GAVSRLHEFV SFEDFQVEVL  645
      Consensus    ..Y.VS...V SIHLP.SR.L AGLHV.LS.. .......E.. P........L  650

6     mouse_E3αII  IEHPLRCLVL CAQVHAGMWR RNGFSLVNQI YYYHNVKCRR EMFDKDIVML  698
4     human_E3αII  IEHPLRCLVL CAQVHAGMWR RNGFSLVNQI YYYHNVKCRR EMFDKDVVML  698
15    mouse_E3αI   VEYPLRCLVL VAQVVAEMWR RNGLSLISQV FYYQDVKCRE EMYDKDIIML  695
2     human_E3αI   VEYPLRCLVL VAQVVAEMWR RNGLSLISQV FYYQDVKCRE EMYDKDIIML  695
      Consensus    .E.PLRCLVL .AQV.A.MWR RNG.SL..Q. .YY..VKCR. EM.DKDI.ML  700

6     mouse_E3αII  QTGVSMWDPN HFLMIMLSRF ELYQLFSTPD YGKRFSSEVT HKDVVQQNNT  748
4     human_E3αII  QTGVSMWDPN HFLMIMLSRF ELYQIFSTPD YGKRFSSEIT HKDVVQQNNT  748
15    mouse_E3αI   QIGASIMDPN KFLLLVLQRY EL-----TDA FNKTIST--K DQDLIKQYNT  738
2     human_E3αI   QIGASLMDPN KFLLLVLQRY EL-----AEA FNKTIST--K DQDLIKQYNT  738
      Consensus    Q.G.S.MDPN .FL...L.R. EL.....T.. ..K..S.... ..D...Q.NT  750
```

Figure 1F

6	mouse_E3αII	LIEEMLYLII	MLVGERFNPG	VGQVAATDEI	KREIIHQLSI	KPMAHSELVK	798
4	human_E3αII	LIEEMLYLII	MLVGERFSPG	VGQVNATDEI	KREIIHQLSI	KPMAHSELVK	798
15	mouse_E3αI	LIEEMLQVLI	YIVGERYVPG	VGNVTREEVI	MREITHLLCI	EPMPHSAIAR	788
2	human_E3αI	LIEEMLQVLI	YIVGERYVPG	VGNVTKEEVT	MREIIHLLCI	EPMPHSAIAK	788
	Consensus	LIEEML...I	..VGER..PG	VG.V.....I	.REIIH.L.I	.PM.HS...K	800
6	mouse_E3αII	SLPEDENKET	GMESVIESVA	HFKKPGLTGR	GMYELKPECA	KEFNLYFYHF	848
4	human_E3αII	SLPEDENKET	GMESVIEAVA	HFKKPGLTGR	GMYELKPECA	KEFNLYFYHF	848
15	mouse_E3αI	NLPENENNET	GLENVINKVA	TFKKPGVSGH	GVYELKDESL	KDFNMYFYHY	838
2	human_E3αI	NLPENENNET	GLENVINKVA	TFKKPGVSGH	GVYELKDESL	KDFNMYFYHY	838
	Consensus	.LPE.EN.ET	G.E.VI..VA	.FKKPG..G.	G.YELK.E..	K.FN.YFYH.	850
6	mouse_E3αII	SRAEQSKAEE	AQRKLKRENK	EDTALPPPAL	PPFCPLFASL	VNILQCDVML	898
4	human_E3αII	SRAEQSKAEE	AQRKLKRQNR	EDTALPPPVL	PPFCPLFASL	VNILQSDVML	898
15	mouse_E3αI	SKTQHSKAEH	MQKKRRKQEN	KDEALPPPPP	PEFCPAFSKV	VNLLSCDVMI	888
2	human_E3αI	SKTQHSKAEH	MQKKRRKQEN	KDEALPPPPP	PEFCPAFSKV	INLLNCDIMM	888
	Consensus	S....SKAE.	.Q.K...Q..	.D.ALPPP..	P.FCP.F...	VN.L.CDVM	900

Figure 1G

SEQ ID NO:									
6	mouse_E3αII	YI MGTI LQWA	VEHHGSAWSE	SMLQRVLHLI	GMALQEEKHH	LENAVEGHVQ	948
4	human_E3αII	CI MGTI LQWA	VEHNGYAWSE	SMLQRVLHLI	GMALQEEKQH	LENVTEEHVV	948
15	mouse_E3αI	YI LRTI FERA	VDTESNLWTE	GMLQMAFHI L	ALGLLEEKQQ	LQKAPEEEV-	937
2	human_E3αI	YI LRTVFERA	I DTDSNLWTE	GMLQMAFHI L	ALGLLEEKQQ	LQKAPEEEV-	937
	Consensus	YI..TI...A	V.....W.E	.MLQ...H..	...L.EEKQ.	L..A.EE.V.	950
6	mouse_E3αII	TFTFTQKI SK	PGDAPHNSPS	I LAMLETLQN	APSLEAHKDM	I RWLLKMFNA	998
4	human_E3αII	TFTFTQKI SK	PGEAPKNSPS	I LAMLETLQN	APYLEVHKDM	I RWI LKTFNA	998
15	mouse_E3αI	AFDFYHKASR	LGSSAMNAQN	I QMLLERLKG	I PQLEGQKDM	I TWI LQMFDT	987
2	human_E3αI	TFDFYHKASR	LGSSAMNI QM	L---LEKLKG	I PQLEGQKDM	I TWI LQMFDT	984
	Consensus	TF.F..K.S.	.G....N...	I...LE.L..	.P.LE..KDM	I.WI L.MF..	1000
6	mouse_E3αII	I KKI RE--CS	SSSPVAEAEG	TI MEESSRDK	DKAERKRKAE	I ARLRREKI M	1046
4	human_E3aI	VKKMRE--SS	PTSPVAETEG	TI MEESSRDK	DKAERKRKAE	I ARLRREKI M	1046
15	mouse_E3αI	VKRLREKSCL	VVATTSGLEC	I KSEEI THDK	EKAERKRKAE	AARLHRQKI M	1037
2	human_E3αI	VKRLREKSCL	I VATTSGSES	I KNDEI THDK	EKAERKRKAE	AARLHRQKI M	1034
	Consensus	VK..RE..C.	........E.	...EE...DK	.KAERKRKAE	.ARL.R.KI M	1050

Figure 1H

```
6     mouse_E3αII   AQMSEMQRHF IDENKELFQQ TLELDTSASA TL--DSSPPV SDAALTALGP 1094
4     human_E3αII   AQMSEMQRHF IDENKELFQQ TLELDASTSA VL--DHSPVA SDMTLTALGP 1094
15    mouse_E3αI    AQMSALQKNF IETHKLMYDN TSEVTGKEDS IMEEESTSAV SEASRIALGP 1087
2     human_E3αI    AQMSALQKNF IETHKLMYDN TSEMPGKEDS IMEEESTPAV SDYSRIALGP 1084
      Consensus     AQMS..Q..F I...K..... T.E..... .....S.P.V SD....ALGP 1100

6     mouse_E3αII   AQTQVPEPRQ FVTCILCQEE QEVTVGSRAM VLAAFVQRST VLSKDRTKTI 1144
4     human_E3αII   TQTQVPEQRQ FVTCILCQEE QEVKVESRAM VLAAFVQRST VLSKNRSKFI 1144
15    mouse_E3αI    KRGPAVTEKE VLTCILCQEE QEVKLENNAM VLSACVQKST ALTQHRGKPV 1137
2     human_E3α     KRGPSVTEKE VLTCILCQEE QEVKIENNAM VLSACVQKST ALTQHRGKPI 1134
      Consensus     .......... ..TCILCQEE QEVK.E..AM VL.A.VQ.ST .L...R.K.I 1150

6     mouse_E3αII   AD-PEKYDPL FMHPDLSCGT HTGSCGHVMH AHCWQRYFDS VQAKEQRRQQ 1193
4     human_E3αII   QD-PEKYDPL FMHPDLSCGT HTSSCGHIMH AHCWQRYFDS VQAKEQRRQQ 1193
15    mouse_E3αI    DHLGETLDPL FMDPDLAHGT YTGSCGHVMH AVCWQKYFEA VQ---LSSQQ 1184
2     human_E3αI    ELSGEALDPL FMDPDLAYGT YTGSCGHVMH AVCWQKYFEA VQ---LSSQQ 1181
      Consensus     ....E..DPL FM.PDL..GT .TGSCGHVMH A.CWQ.YF.. VQ......QQ 1200
```

Figure 1I

6	mouse_E3αII	RLRLHTSYDV	ENGEFLCPLC	ECLSNTVIPL	L-LPPRSILS	RRLN-FSDQP	1241
4	human_E3αII	RLRLHTSYDV	ENGEFLCPLC	ECLSNTVIPL	L-LPPRNIFN	NRLN-FSDQP	1241
15	mouse_E3αI	RIHVDL-FDL	ESGEYLCPLC	KSLCNTVIPI	IPLQPQKINS	ENAEALAQLL	1233
2	human_E3αI	RIHVDL-FDL	ESGEYLCPLC	KSLCNTVIPI	IPLQPQKINS	ENADALAQLL	1230
	Consensus	R.....D.	E.GE.LCPLC	..L.NTVIP.	..L.P..I.S	....	1250
6	mouse_E3αII	DLAQWTRAVT	QQIKVVQMLR	RKHNAA-DTS	SSEDTEAMNI	IPIPEGFRPD	1290
4	human_E3αII	NLTQWIRTIS	QQIKALQFLR	KEESTP-NNA	STKNSENVDE	LQLPEGFRPD	1290
15	mouse_E3αI	TLARWIQTVL	ARISGYNIKH	AKGEAPAVPV	LFNQGMGDST	FEFHSILSFG	1283
2	human_E3αI	TLARWIQTVL	ARISGYNIRH	AKGENP-IPI	FFNQGMGDST	LEFHSILSFG	1279
	Consensus	.LA.WI.TV.	..I.....	.K...P-...	....	....	1300
6	mouse_E3αII	FYPRNPYSDS	IKEMLTTFGT	AAYKVGLKVH	PNEGDPRVPI	LCWGTCAYTI	1340
4	human_E3αII	FRPKIPYSES	IKEMLTTFGT	ATYKVGLKVH	PNEEDPRVPI	MCWGSCAYTI	1340
15	mouse_E3αI	VQSSVKYSNS	IKEMVILFAT	TIYRIGLKVP	PDELDPRVPM	MTWSTCAFTI	1333
2	human_E3αI	VESSIKYSNS	IKEMVILFAT	TIYRIGLKVP	PDERDPRVPM	LTWSTCAFTI	1329
	Consensus	......YS.S	IKEM..F.T	..Y..GLKV.	P.E.DPRVP.	..W.TCA.TI	1350

Figure 1J

SEQ ID NO:						
6 mouse_E3αII	QSIERILSDE	EKPVFGPLPC	RLDDCLRSLT	RFAAAHWTVA	LLPVVQGHFC	1390
4 human_E3αII	QSIERILSDE	DKPLFGPLPC	RLDDCLRSLT	RFAAAHWTVA	SVSVVQGHFC	1390
15 mouse_E3αI	QAIENLLGDE	GKPLFGALQN	RQHSGLKALM	QFAVAQRATC	PQVLIHKHLA	1383
2 human_E3αI	QAIENLLGDE	GKPLFGALQN	RQHNGLKALM	QFAVAQRITC	PQVLIQKHLV	1379
Consensus	Q.IE..L.DE	.KPLFG.L..	R....L..L.	.FA.A.....	.....Q.H..	1400
6 mouse_E3αII	KLFASLVPSD	SYEDLPCILD	IDMFHLLVGL	VLAFPALQCQ	D---FSGSSL	1437
4 human_E3αII	KLFASLVPND	SHEELPCILD	IDMFHLLVGL	VLAFPALQCQ	D---FSGISL	1437
15 mouse_E3αI	RLLSVILPNL	QSENTPGLLS	VDLFHVLVGA	VLAFPSLYWD	DTVDLQPSPL	1433
2 human_E3αI	RLLSVVLPNI	KSEDTPCLLS	IDLFHVLVGA	VLAFPSLYWD	DPVDLQPSSV	1429
Consensus	.L.....PN.	..E..PC.L.	ID.FH.LVG.	VLAFP.L...	D.....SSL	1450
6 mouse_E3αII	ATG--DLHIF	HLVTMAHIVQ	ILLTSCTEEN	---GMDQENP	TGEEELAILS	1482
4 human_E3αII	GTG--DLHIF	HLVTMAHIIQ	ILLTSCTEEN	---GMDQENP	PCEEESAVLA	1482
15 mouse_E3αI	SSSYNHLYLF	HLITMAHMLQ	ILLTTDTDLS	PGPPLAEGEE	DSEEARCASA	1483
2 human_E3αI	SSSYNHLYLF	HLITMAHMLQ	ILLTVDTGL-	---PLAQVQE	DSEEAHSASS	1475
Consensus	.....L..F	HL.TMAH..Q	ILLT..T...	---...Q...	..EE.....	1500

Figure 1K

6	mouse_E3αII	LHKTLHQYTG	SALKEAPSGW	HLWRSVRAAI	MPFLKCSAL	FHYLNGVPAP	1532
4	human_E3αII	LYKTLHQYTG	SALKEIPSGW	HLWRSVRAGI	MPFLKCSALF	FHYLNGVPSP	1532
15	mouse_E3αI	FFVEVSQHTD	GLTGCGAPGW	YLWLSLRNGI	TPYLRCAALL	FHYLLGVAPP	1533
2	human_E3αI	FFAEISQYTS	GSIGCDIPGW	YLWVSLKNGI	TPYLRCAALF	FHYLLGVTPP	1525
	Consensus	.....QYT.	.....GW	.LW.S.R.GI	.P.L.C.ALF	FHYL.GV..P	1550
6	mouse_E3αII	PDLQV-SGTS	HFEHLCNYLS	LPTNLIHLFQ	ENSDIMNSLI	ESWCQNSEVK	1581
4	human_E3αII	PDIQV-PGTS	HFEHLCSYLS	LPNNLICLFQ	ENSEIMNSLI	ESWCRNSEVK	1581
15	mouse_E3αI	EELFANSAEG	EFSALCSYLS	LPTNLFLLFQ	EYWDTIRPLL	QRWCGDPALL	1583
2	human_E3αI	EELHTNSAEG	EYSALCSYLS	LPTNLFLLFQ	EYWDTVRPLL	QRWCADPALL	1575
	Consensus	..L...S...	.F..LCSYLS	LPTNL..LFQ	E..D....L.	..WC.....	1600
6	mouse_E3αII	RYLNGERGAI	SYPRGANKLI	DLPEDYSSLI	NQASNFSCPK	SGGDKSRAPT	1631
4	human_E3αII	RYLEGERDAI	RYPRESNKLI	NLPEDYSSLI	NQASNFSCPK	SGGDKSRAPT	1631
15	mouse_E3αI	KSLKQKSAVV	RYPRKRNSLI	ELPEDYSCLL	NQASHFRCPR	SADDERKHPV	1633
2	human_E3αI	NCLKQKNTVV	RYPRKRNSLI	ELPDDYSCLL	NQASHFRCPR	SADDERKHPV	1625
	Consensus	..L.....	RYPR..N.LI	.LPEDYS.L.	NQAS.F.CP.	S..D....P.	1650

Figure 1L

```
6     mouse_E3αII   LCLVCGSLLC SQSYCCQAEL EGEDVGACTA HTYSCGSGAG IFLRVRECQV 1681
4     human_E3αII   LCLVCGSLLC SQSYCCQTEL EGEDVGACTA HTYSCGSGVG IFLRVRECQV 1681
15    mouse_E3αI    LCLFCGAILC SQNICCQEIV NGEEVGACVF HALHCGAGVC IFLKIRECRV 1683
2     human_E3αI    LCLFCGAILC SQNICCQEIV NGEEVGACIF HALHCGAGVC IFLKIRECRV 1675
      Consensus     LCL.CG..LC SQ..CCQ...  .GE.VGAC..  H...CG.GV.  IFL..REC.V 1700

6     mouse_E3αII   LFLAGKTKGC FYSPPYLDDY GETDQGLRRG NPLHLCQERF RKIQKLWQQH 1731
4     human_E3αII   LFLAGKTKGC FYSPPYLDDY GETDQGLRRG NPLHLCKERF KKIQKLWHQH 1731
15    mouse_E3αI    VLVEGKARGC AYPAPYLDEY GETDPGLKRG NPLHLSRERY RKLHLVWQQH 1733
2     human_E3αI    VLVEGKARGC AYPAPYLDEY GETDPGLKRG NPLHLSRERY RKLHLVWQQH 1725
      Consensus     ....GK...GC .Y..PYLD.Y GETD.GL.RG NPLHL..ER.  RK....WQQH 1750

6     mouse_E3αII   SITEEIGHAQ EANQTLVGID WQHL      1755
4     human_E3αII   SVTEEIGHAQ EANQTLVGID WQHL      1755
15    mouse_E3αI    CIIEEIARSQ ETNQMLFGFN WQLL      1757
2     human_E3αI    CIIEEIARSQ ETNQMLFGFN WQLL      1749
      Consensus     .I.EEI...Q E.NQ.L.G..  WQ.L      1774
```

FIG. 2

Tth Expression Profile of huE3α–II
in Human Tissues

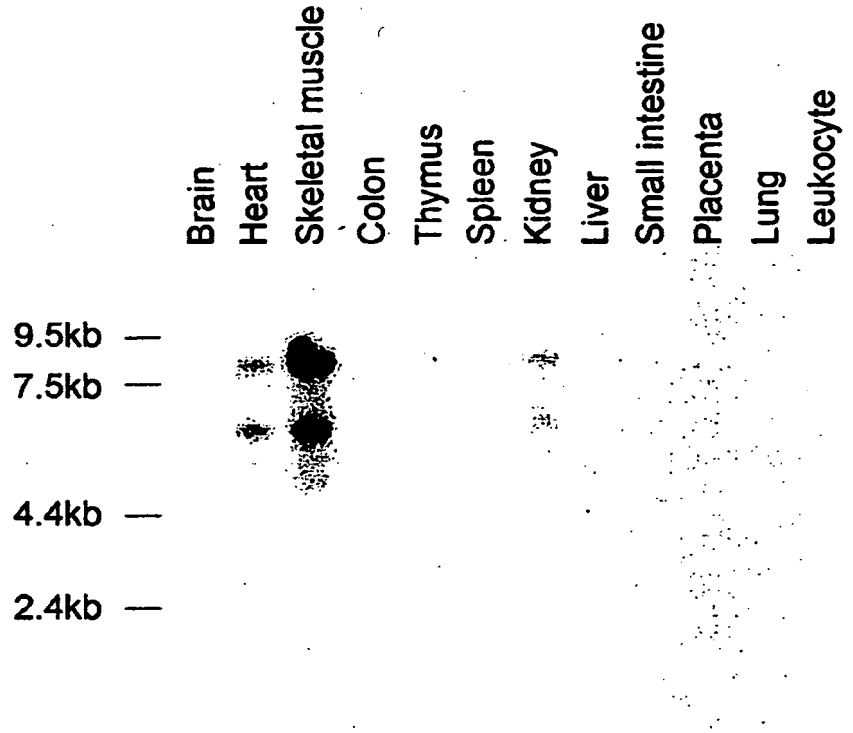


FIG. 3

Tth Expression Profile of huE3α-I in Human Tissues

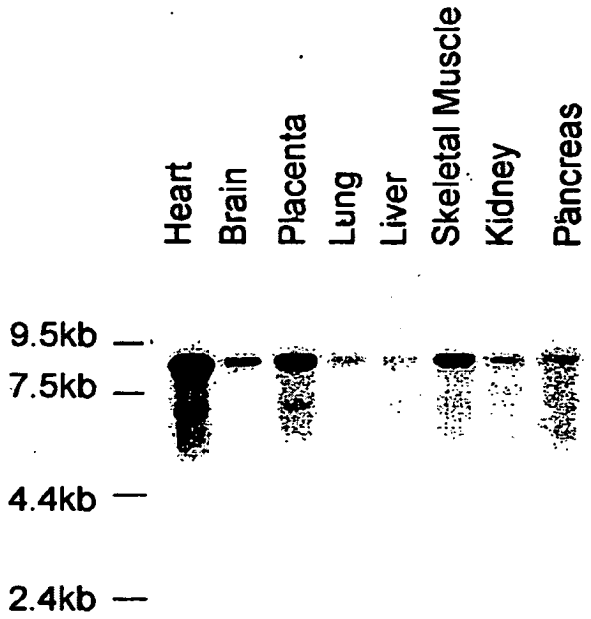


Figure 4
Ubiquitination of Endogenous Proteins

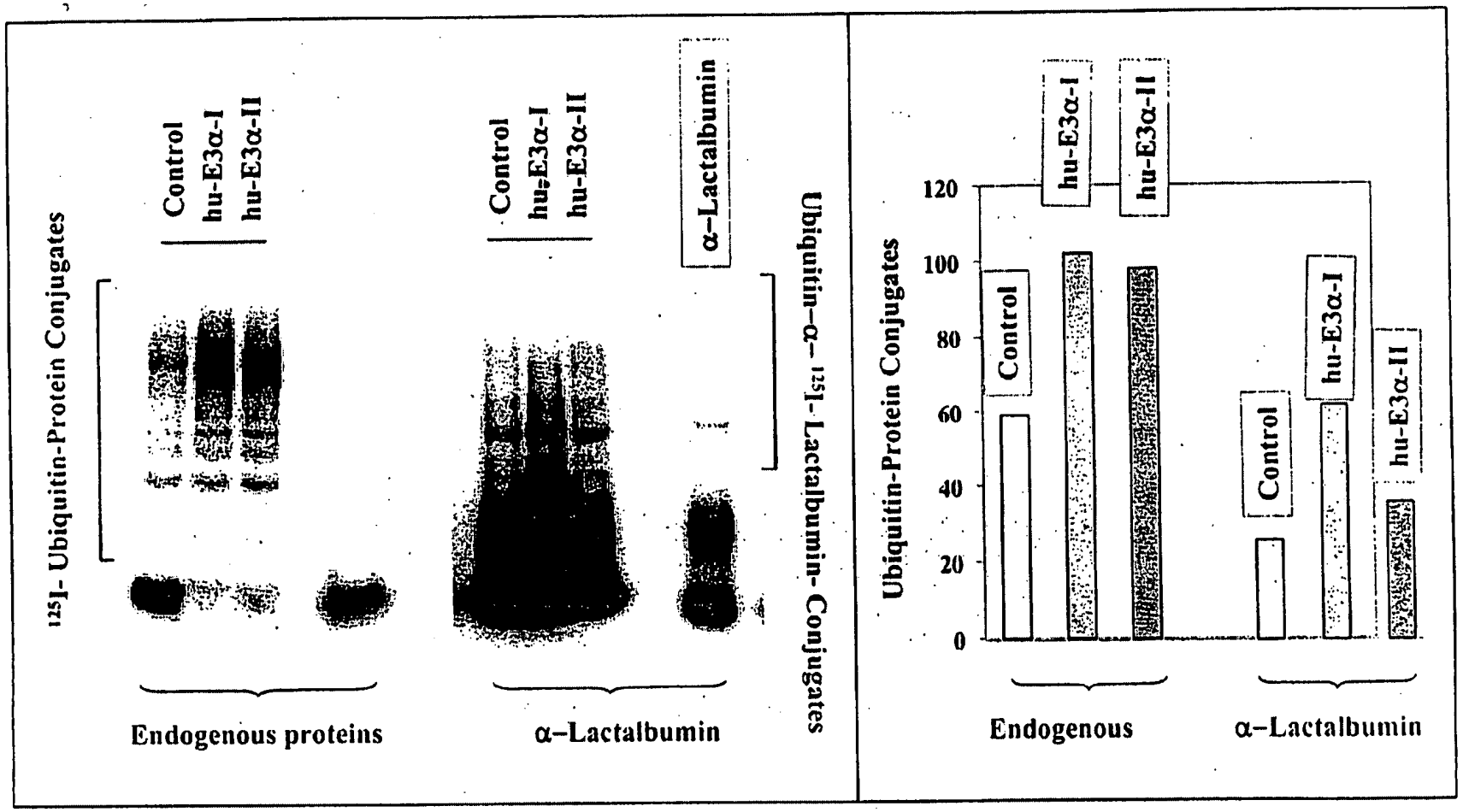
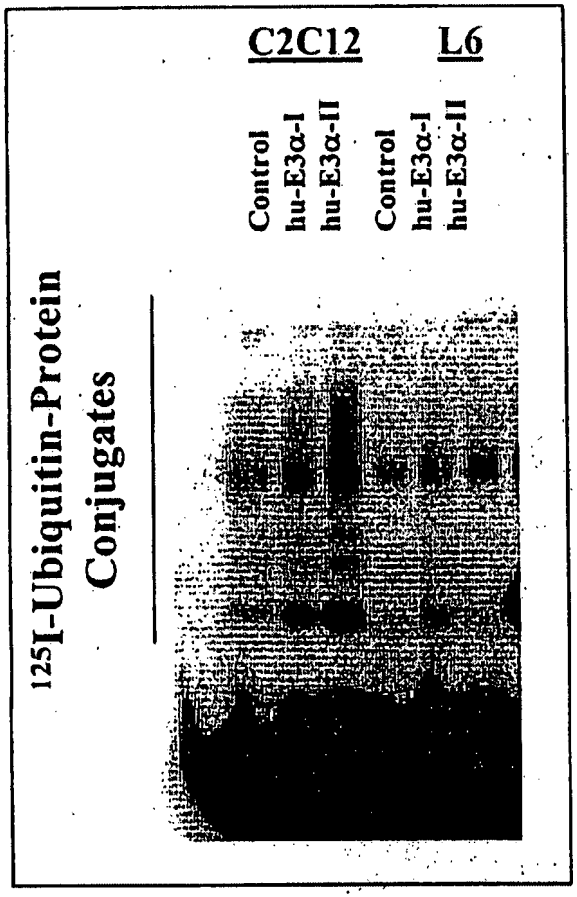


Figure 5

Transfection of Human E3a-I or E3a-II cDNA Stimulates Ubiquitin Conjugation in Cultured Muscle Cell Lines



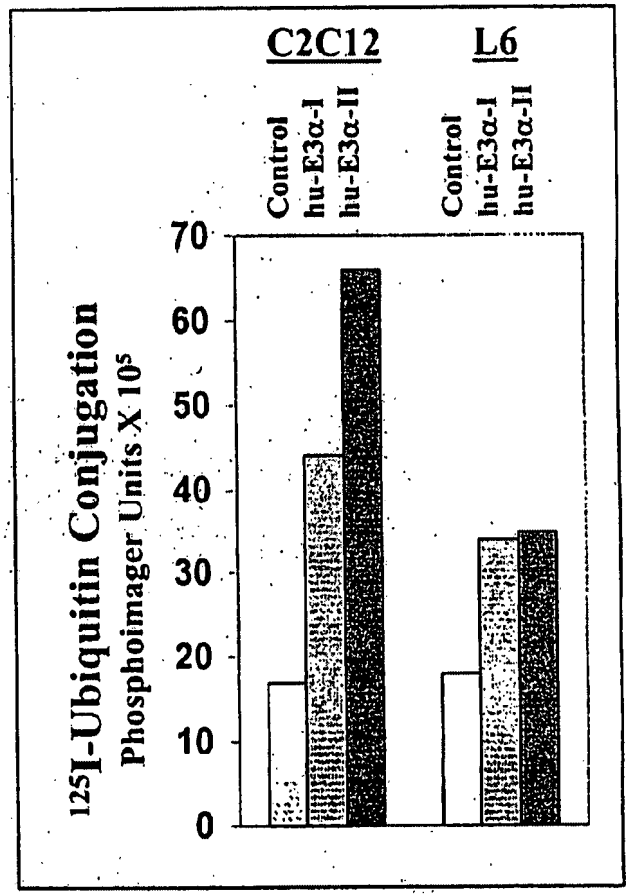


Figure 6

^{125}I-Ubiquitin Conjugation to Muscle Proteins and Its Sensitivity to E3α Inhibitor in Skeletal Muscle Extracts

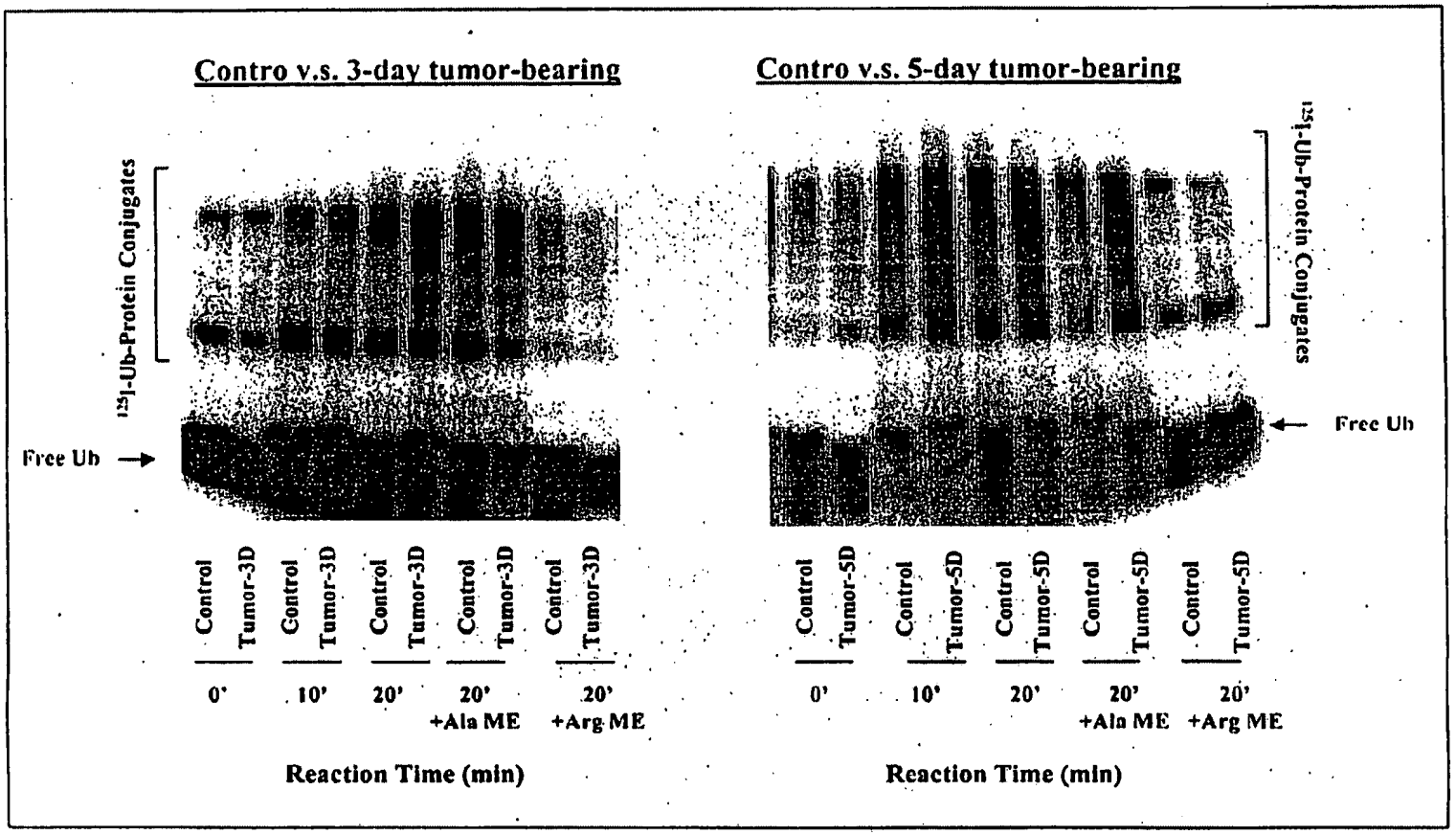


Figure 7

Rates of Ubiquitination of N-end Rule Substrate α-Lactalbumin in Skeletal Muscle Extracts

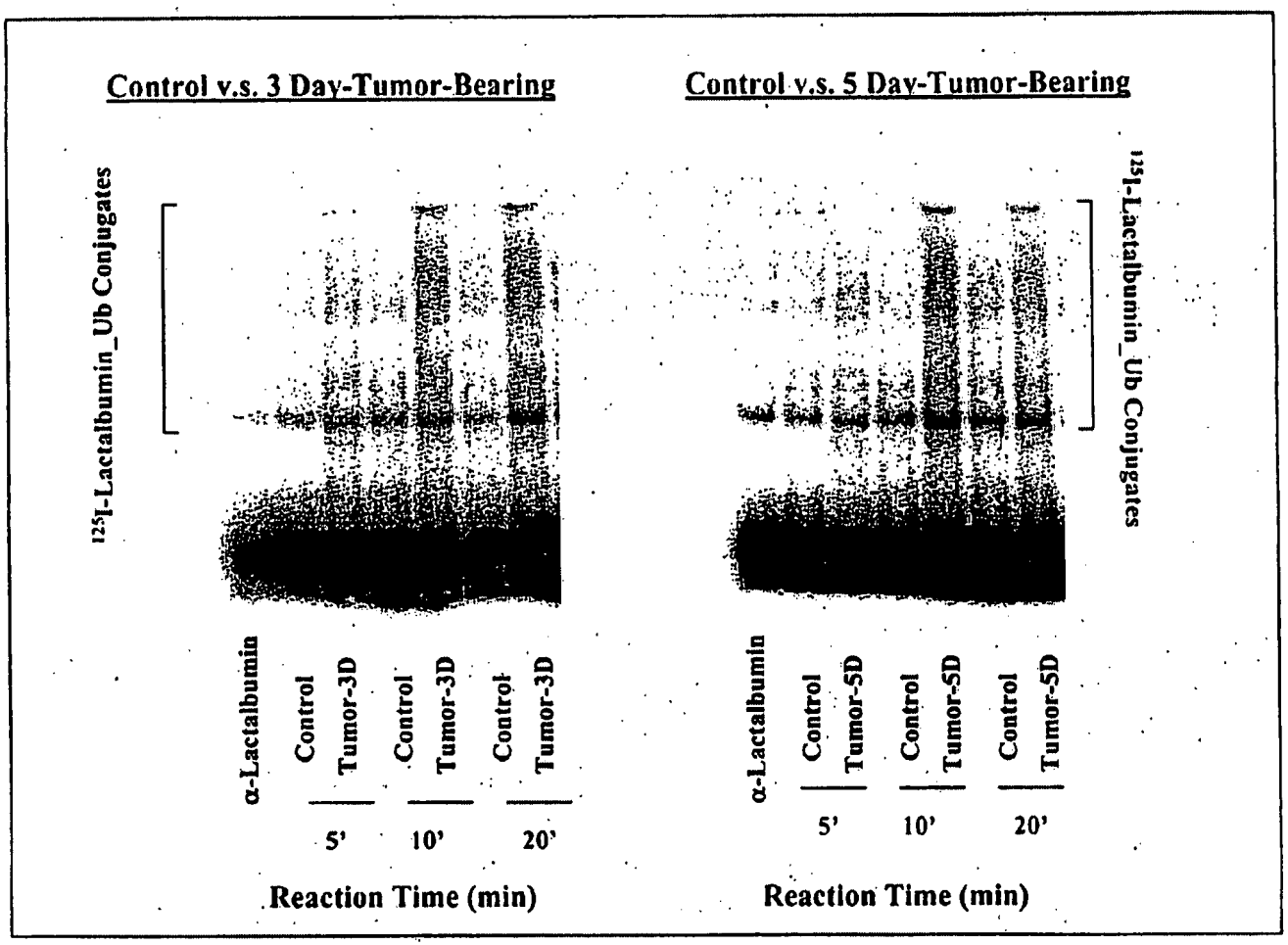


Figure 8

Northern blot analysis of E3α-I & E3α-II expression in gastrocnemius muscles in YAH-130 exprimental cachexia model

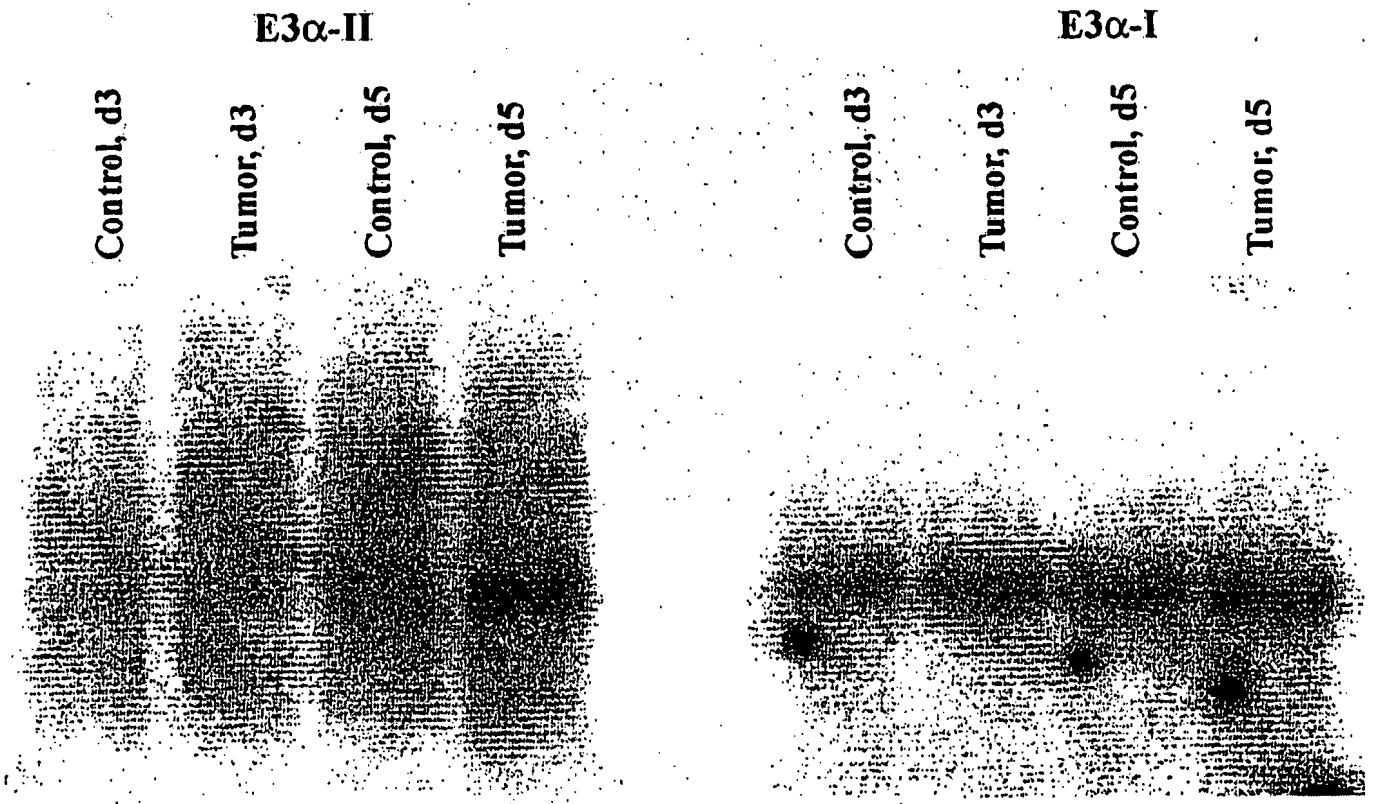


Figure 9

Northern blot analysis of E3α-I and E3α-II expression in gastrocnemius muscle and cardiac muscle in C26 experimental cachexia model

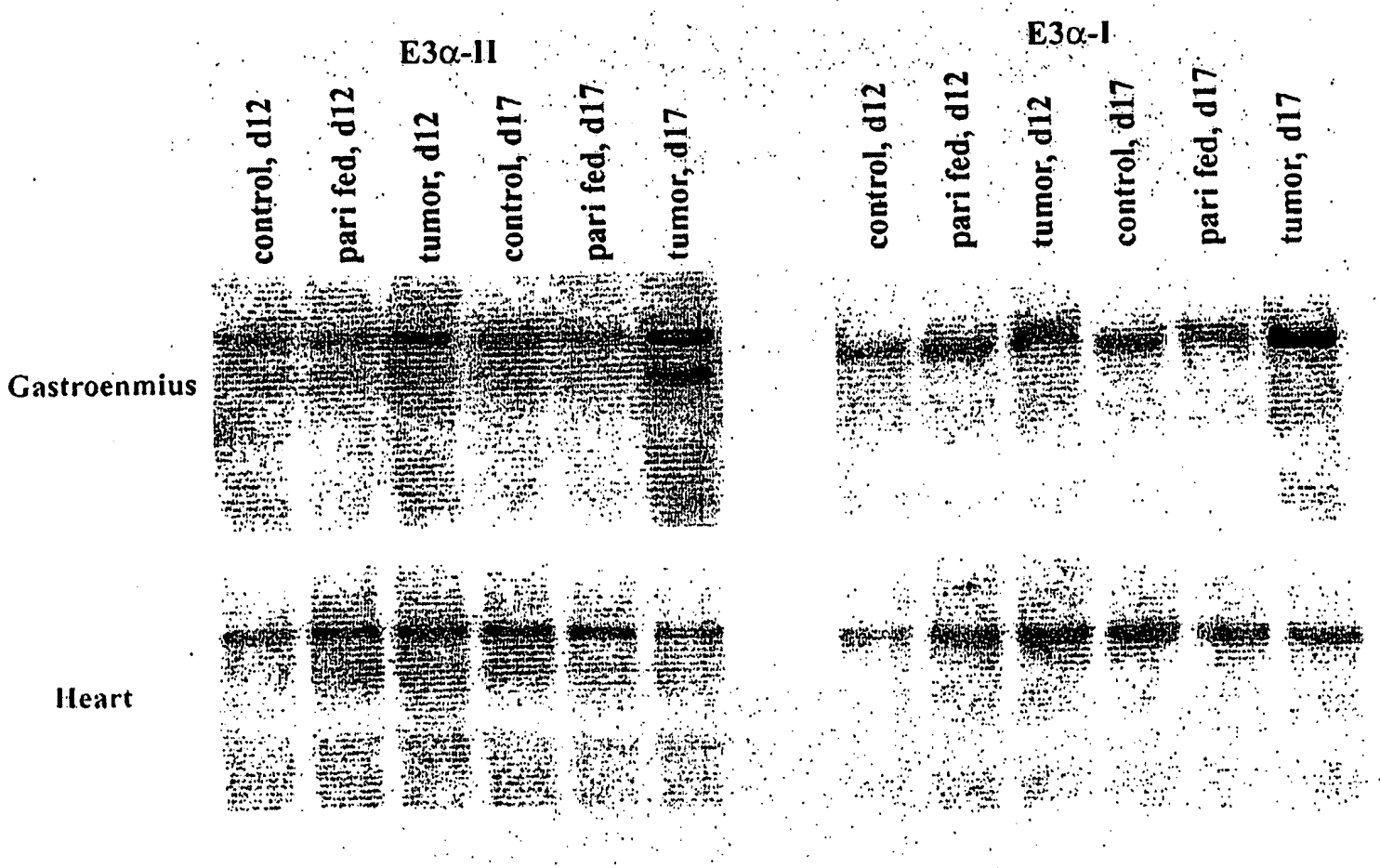


Figure 10

Proinflammatory cytokines TNF-α and IL-6 induce E3α-II Expression in C2C12 myostube culture

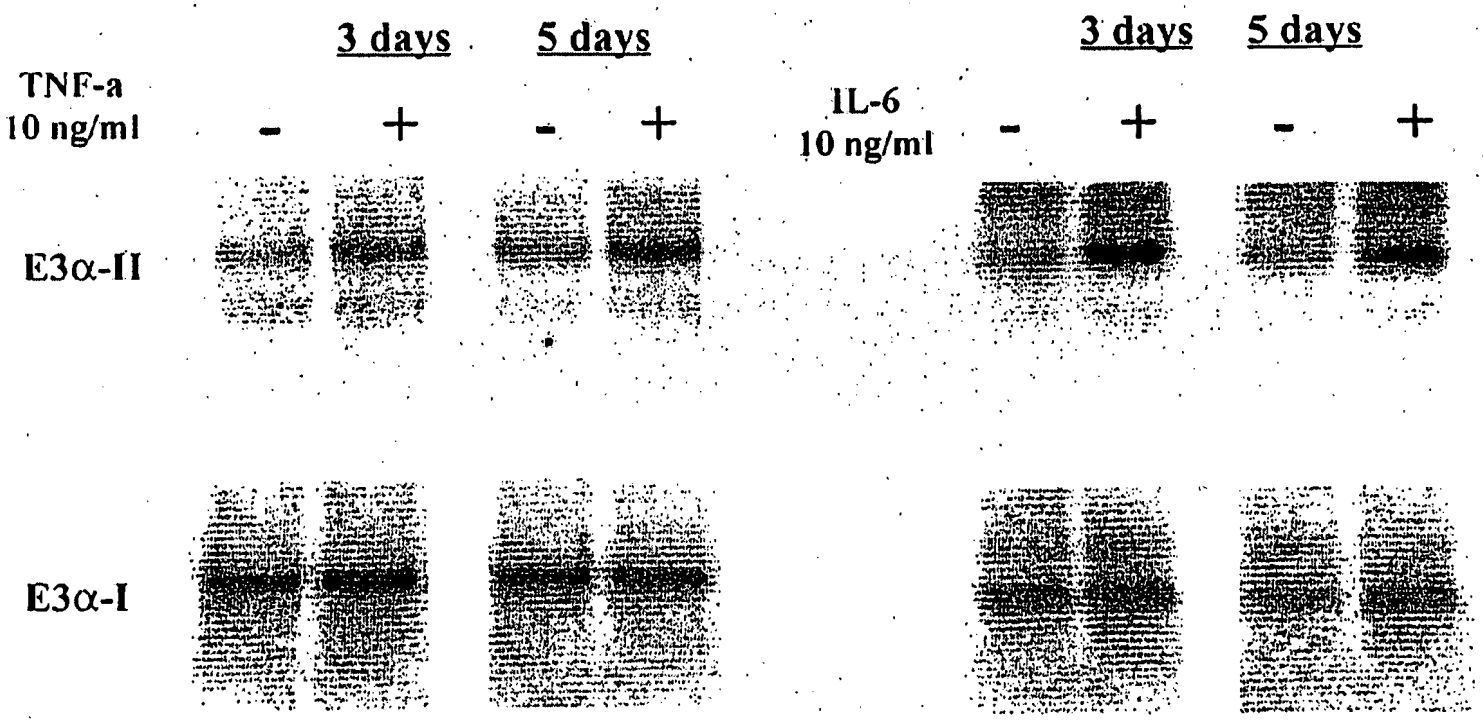


Figure 11

IL-6 Elicits Accelerated Ubiquitination in C2C12 Myotube Cultures

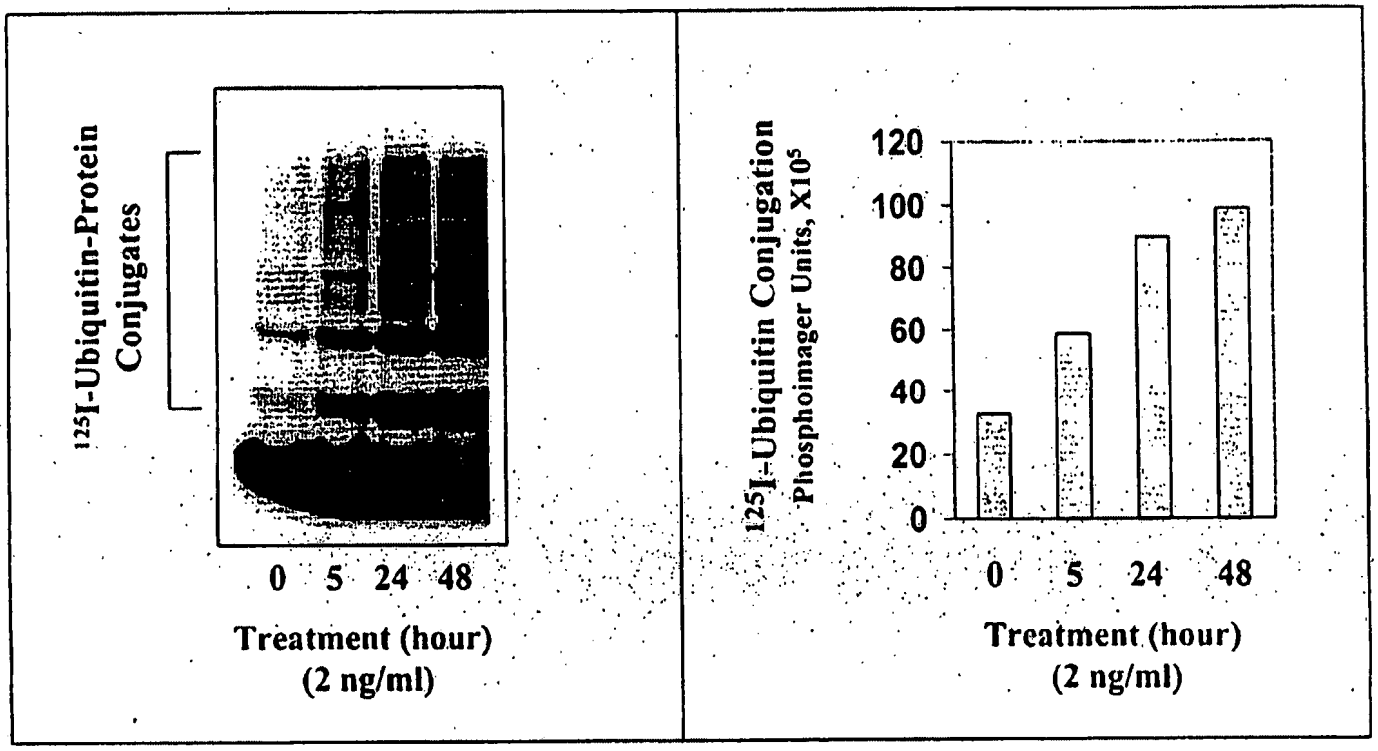


Figure 12

TNFα Elicits Accelerated Ubiquitination in C2C12 Myotube Cultures